ABSTRACT

DUAL FUNCTION ARRAY FEATURE FOR CMP PROCESS CONTROL AND INSPECTION

CMP process control array groups are fabricated upon the surface of the wafer for viewing through an optical microscope. The array groups include a plurality of test arrays, where each array includes a plurality of projecting test features. Each of the projecting test features are formed with the same projecting height and have a hard upper surface layer, such as diamond-like-carbon (DLC). All of the projecting test features within an array are formed with the same diameter, and the diameter of projecting test features in another array. The diameters are chosen such that the DLC surface is removed in specifically designed time increments, such as 5 seconds, from array to array, where projecting test features with the DLC surface removed appear as bright white, while the arrays with test features that retain some DLC surface are significantly darker.